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Population Planning and Quality of Life*

IN 1927 I ATTENDED the International Population Conference at Geneva in which Margaret Sanger played a leading role; and I have remained deeply interested in the problem. Much has happened in the thirty-two years that have elapsed since then. Public interest in the problem of population has grown in an astonishing way. It was then an unpopular subject, kept alive by a handful of devoted pioneers: to-day you can hardly open a newspaper, from the august and respectable *Times* to the most sensational organ of mass circulation, without seeing some reference to population-pressure and even to the once-unmentionable topic of birth-control. Important nations like India and Japan have embarked on official policies aimed at reducing birth-rates and a Pope has commended the subject of mounting population to the consideration of all good Catholics.

On the other hand, the problem has become aggravated by an increase of about three-quarters of a billion people—much more than the world total only three centuries ago. In some quarters there have been set-backs. The World Health Organization of the U.N., under pressure from some of its Member States, has declined to include population as a fit subject for its concern, in spite of the obvious connection between over-population and health, both physical and mental. And many Governments have been deterred from expressing an active interest in population-control by fear of losing votes or by pressure from vocal minorities.

However, the most encouraging change is

that public opinion all over the globe has suddenly and dramatically become aware that population is the most urgent problem now besetting the human species. Research is being pursued, action is being taken, and pressure is mounting for more intensive research and more effective and more widespread action.

It is especially encouraging that this Conference is being held in the capital of India, graced by the presence of our great pioneer, Mrs. Margaret Sanger, and inaugurated with the active blessing of India's great Prime Minister, Mr. Nehru.

The theme of this conference is *Family Planning: Motivation and Methods*. I shall speak mainly of the motivations. I would say that the ultimate motivation for family planning is to secure an improvement in the quality of life—to realize more possibilities of fulfilment for more people; while the immediate motivation is the necessity to secure a reasonable future for the human species before it is too late. The latest figures from the Population Reference Bureau show how urgent the global human position is. The net increase was 47 million last year, and will be 50 million this year. By A.D. 2000—well within two generations—world population will in all probability reach 5½ billion, and will quite certainly exceed 5 billion.

The Growth of World Population

It is important to realize the historical background of this process of human increase—the trends of growth manifested by world population. The number of human beings in existence has increased inexorably from prehistoric times to the present. Before the discovery of agriculture, world population cannot have num-

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bered more than a very few crores.* It must have reached 100 million a little before the birth of Christ: in the mid-seventeenth century (the first date for which we can make a reasonably accurate estimate) it was about 650 million. The one-billion mark was passed about the turn of the nineteenth century and the two-billion mark before 1950, to reach a total of over 2½ billion to-day.

Furthermore, not only has the absolute total steadily increased, but also the rate of increase itself. Before agriculture, the annual compound interest rate of increase must have been below 0·1 per cent (one-tenth of one per cent). The rate reached 1 per cent only in the present century, but is now over 1·5 per cent—and still rising. This means that, whatever measures we take, world population will quite certainly go on increasing absolutely for the next hundred years.

Thus population has not grown at a uniform or steady rate, but by a process of acceleration. Furthermore, the acceleration has become much more violent in the last hundred years, and especially during the present century. This has been due to the progress of medical science, which has radically reduced the death-rate especially of children and young people in under-developed countries, without any comparable reduction in the birth-rate. This spectacular success of death-control has resulted in what can only be called a population explosion, world population having doubled itself in half a century, and being destined to redouble itself, whatever action we attempt, in well under that time in the future.

Population and Quality of Life

This continued and still continuing increase in the number of people prompts the question, *What are people for?* What is the aim of human life? It cannot be merely increase in quantity. Nor merely increased production of machines or gadgets. Nor merely increased comfort and passive entertainment. Nor merely increased power and domination, individual or collective. It surely must be increased quality of life, and

its progressive enrichment. More scientifically, the aim of mankind must be to act as agent for its own improvement and for the further evolution of our planet, by providing for greater fulfilment of more human beings and fuller realization of their individual possibilities and social achievements, and in such a way as not to prevent or hamper the attainment of greater fulfilment by generations to come. Fulfilment in this sense involves physical, mental and spiritual well-being, understanding, enjoyment, hope, the satisfying exercise of one's faculties, creative activity, the integration of personality, participation in worthwhile projects, membership of a society which can be proud of its achievements, and a sense of significance in relation to the cosmos.

Population-increase is now infringing on the quality of life in many ways, and curtailing the realization of many or all of its desirable possibilities. Let us examine the present momentous period and look at the degree to which various possibilities are falling short of realization owing to population-increase and are likely to fall increasingly short in the immediate future.

Threats to Human Fulfilment

1. *Physical well-being.* Already two-thirds of the world's population are under-nourished, and as the absolute number of human mouths increases, the absolute total of under-nourished human beings is bound to increase for a time, and also the acuteness of under-nourishment in under-privileged countries. By promoting under-nourishment of all sorts—deficiency of proteins and vitamins as well as of calories—population increase keeps the physical and also the mental energy of people at a low level, and so reduces their possibilities of initiative and achievement in all departments of life, including science and art as well as material production.

2. *The deforestation and erosion* caused by expanding populations have already reduced the possibilities of agricultural production. They are certain to become really serious as population increases and spreads, unless drastic measures are undertaken.

3. *Water-supply* is beginning to prove inadequate in many areas, especially in the neighbourhood of over-large and expanding cities

* Crore is the useful Indian word for ten million and billion the equally useful American word for one thousand million.

(e.g. London, Los Angeles). Furthermore, water for irrigation is the limiting factor for agricultural production in the world's huge arid and semi-arid areas. Here, dams and reservoirs are urgently needed. But even when they are built, the new areas that they supply become filled with people in a few decades (e.g. the 5 million acres irrigated by the Lloyd Barrage at Sikkur on the Indus). Even a high dam at Aswan will not cater for the needs of Egypt's rapidly increasing population for more than two or at most three generations.

4. *Over two-thirds of the world's population are still illiterate*, and only a minute fraction receives any higher education. And yet at all levels, educational facilities (buildings, teachers, books, equipment) are not keeping up with the flood of new minds and bodies to be educated. This holds up the progress of industrialization and the improvement of agricultural practice as well as scientific and technological advance in all under-developed countries, especially those that are already densely or over-populated, and is delaying the possibility of mankind reaching a collective understanding of itself and its destiny, or of engaging in collective projects of world development.

5. *Human variety is being threatened by population-increase*. The need for mass-production and industrialization to supply food and a living to vast populations is tending to the destruction of cultural variety by a wave of drab uniformity, and is substituting mechanical tasks for creative and enjoyable work.

6. *Population-increase is also restricting human liberty*. Once population-density has reached a certain threshold value, further increase inevitably demands over-organization if efficiency is to be maintained, and over-organization reduces the area of freedom. Regulation and regimentation, direct or indirect, become necessary. Mass-production removes individual initiative, quantitative norms imposed from above replace spontaneity and qualitative incentives. Daily life and work are routinized and existence becomes increasingly mechanical as well as increasingly mechanized. After a longer or shorter time, the process eventually leads to more regimentation or mass activity in every sphere of human life

—agriculture, industry, communications, entertainment, mass rallies and celebrations.

Alternatively, when for any reason productive efficiency cannot be maintained, over-population leads to social fragmentation and under-organization (e.g. in rural Haiti), and this again restricts other freedoms, such as freedom from want and freedom for joint creative and productive activity.

7. *Increased population is leading everywhere to hypertrophied cities and conurbations*, even up to 10 million people and over. These are far beyond optimum size for efficiency, and far beyond optimum scale for truly human living. Where the standard of life is low they tend to develop into gigantic slums and large-scale breeders of virus-fodder; where it is high, they become generators of frustration and wasters of time and energy. Their spread is creating large areas of man-made ugliness and drabness, and hordes of routinized people on their tiresome daily journeys to and from work.

8. *In technologically advanced countries large populations are resulting in increased traffic congestion, and increased appropriation of land for housing and communications*. In some of them, such as Britain, there is already a heavy pressure on mere space through the competitive and mutually exclusive demands of industry, defence, communications, housing, and amenity on the rapidly shrinking areas of open country.

9. *In various places on the earth's surface, over-population can legitimately be compared to a cancerous growth*. It causes suffering and discontent locally, and leads to large-scale emigrations which are comparable to metastases in cancer, and are creating social difficulties in the recipient countries (e.g. West Indians in Britain, Puerto Ricans in New York).

10. *Over-population reduces the possibilities of employment*—there are not enough jobs to go round, and certainly not enough worthwhile jobs of a satisfying nature. This is becoming serious in countries like India, where large-scale rural under-employment is already common and chronic urban and educated unemployment is beginning to appear. China too is already aware of this threat of over-population and adequate employment.

11. *In under-developed and densely populated countries, continued population-increase reduces the possibility of an economic breakthrough to a higher standard of living.* Not only does it tend to stabilize or aggravate under-employment with all its resultant inefficiency, but, through the demands that it makes on the national income for services of various sorts, it is constantly cutting down the amount available for capital investment. Every million added to the population of a country means not only a million more mouths to feed, but a million more bodies to clothe, house, transport, and keep in health, and a million more brains to train and educate. The amount expended on all this must be deducted from the amount needed to improve transport, to extend industrialization, to start new industrial enterprises and power plants, new irrigation schemes, new schools and colleges and technological institutes; and this will be most serious in under-developed and densely populated countries, where the need for such new investment is most urgent. Thus in such areas expenditure on population-control should be given extremely high economic priority. Further, planning authorities should constantly bear in mind the economic (as well as the social) effects of investment in projects (such as malaria control) which will reduce the death-rate, as against those of measures aimed at reducing the birth-rate.

12. *The possibilities of wonder, enjoyment and adventure available to man are being curtailed.* Population-pressure is reducing the readily accessible areas of unspoilt wilderness and natural beauty, while at the same time increasing the number of people who want to enjoy them. Even where National Parks and Reserves have been established, they are being whittled away by the economic, social and military demands of an increasing population. Similarly, the famous and beautiful cities that are the goals of modern pilgrimage are becoming spoilt by commercialization and congested with sightseers; so here, too, population-pressure is curtailing another important possibility of human satisfaction. And all over the world wild life is being rapidly reduced or even exterminated. The sight of an abundance of large mammals and lovely birds leading their

natural lives is a wonderful and satisfying experience: but, thanks to human population growth, the possibility of enjoying it is rapidly diminishing.

13. *Human beings need to feel that they are in some harmonious relation with nature.* This will become increasingly difficult if population-pressure forces us to an excessive or radical exploitation of natural resources, instead of aiming at a symbiotic existence, in ecological partnership with our globe. Over-population is preventing the development of a planetary ethic based on the moral duty of conservation.

For all these reasons it is urgent to reduce the rate of world population-increase. The basis of every real success here must be the development of a cheap and satisfactory oral contraceptive: and the prerequisite for this is research. If one-tenth of one per cent of what is spent on atomic missiles or space satellites were available for research on the control of human reproduction, we would undoubtedly have an answer within a decade. Research on this global subject should be international. Perhaps bodies such as our Federation and the Population Council could help in promoting and co-ordinating it.

Motivations for Family Planning

Thus there are various motivations for family planning and population-control. For governments, the realization that a reduced rate of increase is necessary for the general health and strength of their citizens, for economic advance, for social stability, for adequate education, for cultural achievement, and for intellectual and technical competence, will obviously be the prime motive for establishing an official population policy.

Official population policies are something new in the world, and we have to plan the best methods of implementing them. Usually, the Ministry of Health is put in administrative charge of the subject of population and its control. It would seem desirable to enlarge such Departments into *Ministries of Health and Population*, with their two sub-departments of equal importance. This would give the subject of population a higher status in national affairs. Propaganda, practical assistance and advice for family planning could then be provided by some

form of Health Extension Service operating at all levels.

Then Governments can provide some economic motivation. Just as bonuses for large families encourage population-increase, so a system of family allowances in which the amount allowed decreases sharply for every additional child after the first two would encourage family limitation. Taxation systems might also be modified to operate in this direction. And of course Governments can help by devoting much attention to research.

For the individual, there may be various motives. There is first the wish that his children should have more opportunities and a better education and start in life. As children cease to be an economic asset, the individual's desire to raise his family's standards of living and enjoyment will become a more effective motive. And if the individual can be made to realize that family limitation will enable his country to have a stronger and finer population, to achieve more in science and art, in exploration and sport, and to play a more important role in the world, his patriotism too may be brought in as a motive.

Population Policy in India

Here I may be permitted a few words on India's population problem, as it appears to an observer from another continent. In the first place, India's position in this matter is crucial. She is the largest democratic under-developed nation, not only in Asia but in the world. Failure to solve her population problem will be a political and social disaster: success will secure her leadership in Asia and give hope to the world at large.

Here again we must recall the historical aspects of the problem. People sometimes say that since India has persisted through millennia, she will continue to persist whatever we do or do not do. This is a fallacy. India has *not* remained the same throughout its history: for one thing, it has grown in numbers, and its growth in numbers has changed its character and modified its possibilities of further development. In early times, India's population can only be guessed at, but it seems clear that when the East India Company was founded in 1600, it cannot well have exceeded 100 million. By

1834 it was estimated at about 130 million; it had increased to about 200 million by 1871, and to 300 million by 1910. To-day, India contains about one-seventh of the human species: her population is now nearly 400 million. It is increasing by over six million a year* (more than all Australians in every two years). At this annual rate, India's population will double itself in around forty-five years, and will reach three-quarters of a billion before the end of the present century—during the lifetime of many Indians now living. This explosive increase of nearly 150 million since 1921 has been caused by efficient death-control, the mortality rate having been almost halved during this period, while the birth-rate has gone down by only about 6 per cent. With all the health measures now in force and projected, the death-rate will certainly continue to drop, thus tending to promote a still higher rate of increase.

The careful study by Coale and Hoover† of Princeton has brought to light many important points concerning the relation of India's population-increase to its economic development. It is not for me to enter into detail: but I must mention some of their main points. They point out that unless the birth-rate is reduced, India will be unable to achieve an economic break-through from its state of under-development and under-employment to a developed and developing economy. This is because the demand for servicing the additional population (an increasing proportion of which will be children of an unproductive age and therefore an increased economic burden) will make it impossible to provide adequate finance for industrialization and technological development. If present trends continue, a point of economic no return will be reached in less than thirty years. If, on the other hand, effective measures aiming at population-control are immediately undertaken, so that the birth-rate

* Accurate figures are hard to come by. Some authorities put the annual increase as high as 8 million! Certainly 6 million is a minimum.

† Coale, A. J., and Hoover, E. M. *Population Growth and Economic Development in Low-Income Countries: A case study of India's prospects*. Princeton 1958, University Press. (India, Oxford University Press). Summarized in *Population Bulletin*, December, 1958.

begins to go down sharply by 1966 and becomes halved by 1981, then a break-through to a developed economy will still be possible. The details of this dating may be modified by the course of events, but the modifications cannot be large. The broad conclusion is that for an economic break-through to be achieved by India the birth-rate must begin to go down within a decade, and must be halved within a further two or at most two-and-a-half decades.

Coale and Hoover also draw attention to the disparity between the expenditures on birth-control and on death-control. The Second Five-Year Plan allocated \$10 million for population planning, but over \$50 million for medical health programmes, which will inevitably help to unplan population. The allocation for malaria control during the single year ending this March was \$14 million. This is an economic absurdity—\$14 million for one measure which will certainly increase population, as against \$10 million for all measures which could reduce it!

The only possible conclusion is that the balancing of death-control by birth-control is a matter of the utmost urgency for India, economically as well as socially, and that measures aimed at reducing fertility should have an extremely high priority in all future economic planning. Much more should be spent on research; a new army of doctors, nurses, midwives and health workers should be immediately recruited and trained, to encourage birth-control and give free advice and distribute free contraceptives to all classes in all regions; financial inducements should be given for limiting families, whether by sterilization or contraception; propaganda, through the press and radio and by travelling speakers, should be conducted on a national scale. Every crore of rupees spent on such measures for preventing births would pay handsome dividends in the saving of many crores that would be needed to feed, clothe, house and educate the babies that

would otherwise have been born. Just how many, I leave to the economists to calculate. But it is clear that, even from a purely economic standpoint, expenditure on population-control is one of the most profitable forms of investment for India.

Conclusion

To return from India to the world scene, I am sure that the heaviest emphasis, and the ultimate motivation, both for nations and individuals, must combine fear and hope. It must be on the urgent necessity of limiting world population, to prevent it inflicting grave and perhaps irreparable damage on the whole human species and its terrestrial home, and to give mankind the hope and the possibility of reaching new levels of fulfilment and new heights of achievement.

The International Planned Parenthood Federation can contribute to this end in various ways, including the holding of conferences such as this. As a non-governmental but international organization with no political or religious bias, no axes to grind or outside interests to serve, it might become of considerable importance as a clearing-house and advisory body, whose help and advice could be sought by any country or any group. But to accomplish this, it would need a considerable increase of revenue and staff, including a Secretary-General of the highest standing, and with ample provision for travel, and perhaps also officials who could be seconded for a period to countries in need of advice and assistance. The time seems ripe for this transformation of the Federation from an organization mainly concerned with arousing public opinion into one mainly concerned with implementation and operation. Perhaps the present Conference will consider ways and means by which this desirable step might be taken.